



OFFICE OF
RIVER PROTECTION
United States Department of Energy

A/AX Retrieval Project Status January 2019

Hanford Advisory Board Tank Waste Committee

Presented by
Office of River Protection Tank Farms

January 2019



Consent Decree: (as amended 10/12/18)

- **Milestone B-2**

- Complete retrieval of tank wastes from the following single shell tanks (SSTs) in Tank Farms A and AX: A-101, A-102, A-104, A-105, A-106, AX-101, AX-102, AX-103 and AX-104. Subject to requirements of Section IV-B-3, U.S. Department of Energy may substitute any of the nine identified SSTs and advise State of Washington Department of Ecology accordingly **DUE: 9/30/2026**

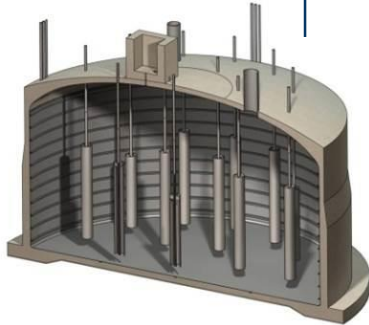
- **Milestone B-3**

- Of the nine SSTs referred to in Milestone B-2 [three SSTs from B-1 (not listed)] 12 total, five must be retrieved **DUE: 6/30/2021**

Tri-party Agreement (TPA) Milestones:

- **M-045-15**
 - Complete retrieval of A-103 **DUE: 9/30/2022**
- **M-045-86**
 - Complete Retrieval Data Report within one year of a waste tank Retrieval Completion Certification
- **Settlement Agreements**
- **Vapors Litigation Settlement Agreement**
 - Requires exhausters to be installed and operable in A-Tank Farm by **9/1/2020**

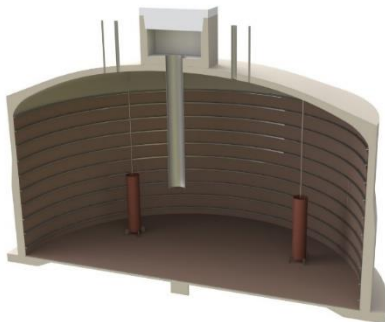
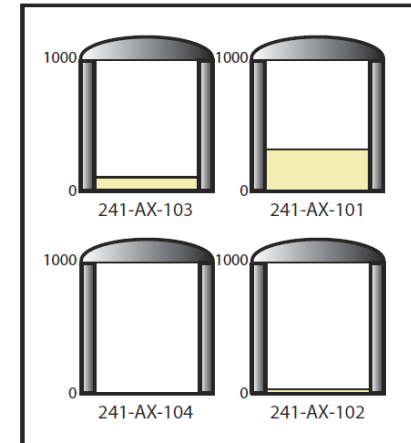
A/AX Tanks – Volumes and Waste Types



AX-Tank Farm- Constructed 1963-1965

4 @ 1,000 Kgal Tank Capacity, Single-Shell
Kgal

Tank	Sludge	Saltcake	Supernatant
241-AX-101	2	318	0
241-AX-102	6	24	1
241-AX-103	8	96	1
241-AX-104	5	0	0

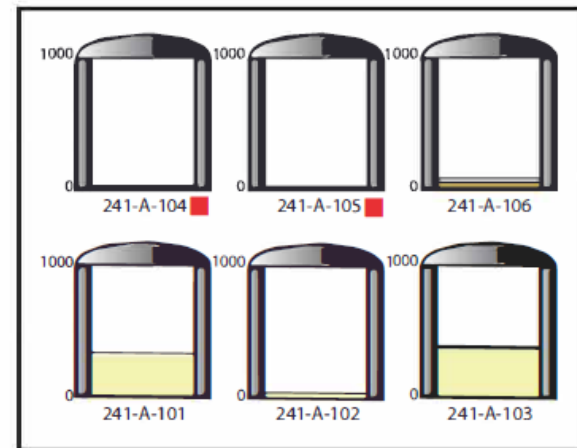


A-Tank Farm- Constructed 1953-1955

6 @ 1,000 Kgal Tank Capacity, Single-Shell
Kgal

Tank	Sludge	Saltcake	Supernatant
241-A-101	3	329	0
241-A-102	0	38	2
241-A-103	2	376	10
241-A-104 ■	25	0	0
241-A-105 ■	20	0	0
241-A-106	50	29	0

■ = Assumed Leaker



Design, Procurements, Characterization and Footprint Prep Phase

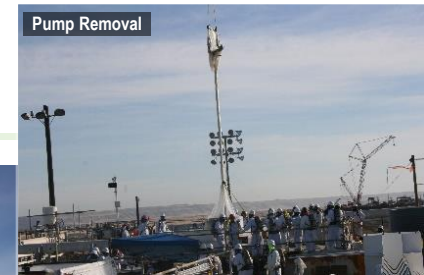
- Over 1,100 linear feet of asbestos insulated steam piping removed to make room for new waste retrieval system and farm access
- Isolated old underground ducting
- Installed two exhausters (POR126 and POR127) and ventilation ducting to all four tanks in AX-Farm
 - 3,000 ft³ capacity each
- Prepared farm footprint for large construction crews by removing/demolishing old structures/septic tanks and installing new Ingress and Egress facilities at the farms
- Removed small items from AX tanks to prep tanks for Long-Length Equipment (LLE) removals
- Removed foam from 12 pits to support pit and riser investigations for design purposes
- Completed Headspace sampling of the tanks to support vapor programs
- Four tank pits cleaned out
- Completed initial design for AX-Farm Retrievals



September 2015

Field Execution Phase Ramps Up

- **AX-Farm equipment removal and pit cleanout activities**
 - Twelve tank pits cleaned out
 - Sixteen Long-length components removed
- **Installed water/chemical services building (A285)**
 - Two hot water skids
 - One cold water skid
 - Air compressor
 - Chemical unloading station to support waste retrieval operations
- **Installation of A-AX Farms water and chemical addition systems from A285 Water/Chemical Building**
 - Over 3,200 linear feet installed
- **Installed new 13.8kV transformer to support electrical needs for AX retrieval operations**



Field Execution Phase Ramps Up



- Performed excavation and installation of AX-Farm electrical infrastructure to support retrieval systems equipment
 - Several thousand lineal feet of conduit installed to date
- Installation of the two AX-Farm control trailers to support retrieval system operations
- Isolated obsolete underground ventilation ducting in A-Farm
- Installed A-Farm Ventilation Exhauster pad and valve manifold pad
- A-Farm Exhausters two installation, in progress
- Began installation of Hose-in-Hose Transfer Line to support waste retrieval system
- Installed water manifold building (POR466) in AX-farm
- Installed Waste Retrieval System (WRS) Diversion valve box (POR412)
- Installed WRS Splitter valve box (POR497)
- Installed two Extended Reach Sluicer Systems in AX-102
- Installed one slurry pump in AX-102

- Complete installation of retrieval system in AX-102
- Commence retrieval operations in AX-102
- Commence retrieval equipment installation in AX-104
- Continue LLE removals from both A-Farm and AX-103
 - Pumps
 - Sluicers
 - Thermocouples
- Continue installation of A-Farm ventilation system
 - Exhausters
 - Valve manifold
 - Ducting

